UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,329	11/02/2005	Tadahiro Ohmi	5016-0101PUS1	5081

2292 7590 09/14/2009

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER	
DINH, TUAN T	

ART UNIT	PAPER NUMBER
2841	

NOTIFICATION DATE	DELIVERY MODE
09/14/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/525,329	OHMI ET AL.	
	Examiner	Art Unit	
	Tuan T. Dinh	2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) *2-7,10,11 and 13-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,8,9 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *05/05/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 8-9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanba ('065) in view of Takaya et al. (U.S. Patent 6,808,642).

As to claim 1, Kanba et al. discloses a circuit board as shown in figures 1-3, and 10 having an insulator layer (11a, 11b) having a magnetic material (see column 3, lines 20-49) and a conductor (12) buried inside said insulator layer, said circuit board characterized in that said insulator layer (11a, 11b) comprises a first insulator satisfying a relationship of μr (=20) ≥ єr (=6) given that a relative permittivity is μr and a relative permeability is єr, and said conductor is substantially surrounded by said first insulator.

Kanba does not specifically disclose said insulator layer further comprised a magnetic substance dispersed into said layer.

Takaya et al. teaches a multilayer substrate or electronic part as shown in figures 1-10 comprising an insulator layer (prepreg layer 101) having a magnetic powder dispersed into said layer (column 2, lines 43-47).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a teaching of Takaya et al. employed in the circuit board of Kanba in order to provide a high dielectric constant and a high magnetic permeability.

As to claim 8, Kanba et al. discloses said first insulator contains a synthetic resin (11a contained 13a-13d) and a magnetic substance (11b contained 13e), see column 3.

As to claim 9, Kanba et al. discloses said synthetic resin, which is a silica, see column 3, lines 25-29, is at least one resin selected from the group consisting of an epoxy resin, a phenol resin, a polyimide resin, a polyester resin, a fluorine resin, a denatured polyphenylether resin, a bismaleimide triazine resin, a denatured polyphenylene oxide resin, a silicon resin, a benzocyclobutene resin, a polyethylene naphthalate resin, a polycycloolefin resin, a polyolefin resin, a fluorocarbon polymer, a cyanate ester resin, a melamine resin, and an acrylic resin.

As to claim 12, Kanba et al. discloses a circuit board as shown in figures 1-3, and 10 comprising an insulator layer (11a, 11b) including a magnetic material (column 3, lines 20-49) having opposing first and second main surfaces, and first and second wiring layers (terminals 54) formed on said first and second main surfaces of said insulator layer, wherein at least a part of said insulator layer satisfies a relationship of μr (=20) ≥ єr (=6) given that a relative permittivity is μr and a relative permeability is єr, and said conductor is substantially surrounded by said first insulator.

Kanba does not specifically disclose said insulator layer further comprised a magnetic substance dispersed into said layer.

Takaya et al. teaches a multilayer substrate or electronic part as shown in figures 1-10 comprising an insulator layer (prepreg layer 101) having a magnetic powder dispersed into said layer (column 2, lines 43-47).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a teaching of Takaya et al. employed in the circuit board of Kanba in order to provide a high dielectric constant and a high magnetic permeability.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 8-9, and 12 have been considered but are moot in view of the new ground(s) of rejection.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reichard Dean can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan T Dinh/
Primary Examiner, Art Unit 2841.